

REMARKS

Applicants respectfully request consideration of the subject application as amended herein. This Amendment is submitted in response to an Office Action mailed on January 16, 2004. Claims 1-27 are rejected. Claims 1, 3, 8, 10, 11, 13, 17 and 19-21 have been amended. No new matter has been added.

The Examiner rejected claims 1-27 under 35 U.S.C. § 102(e) as being anticipated by Schell, et al., (U.S. Patent No. 6,628,279, hereinafter "Schell").

Schell discloses a tool for three-dimensional modeling. The tool allows a user to select a set of elements within a three-dimensional model and associate the selected elements to form an object. The tool then determines the behavior the object will exhibit when it is instantiated in the model and creates a new component by combining the object with the behavior (col. 18, lines 49-60).

Contrary to the presently claimed invention, Shell does not provide a set of available design features from which the user can select a desired feature. Instead, in Shell, a user has to select geometrical elements in advance to define an object that will result from these geometrical elements (col. 18, lines 51-54).

Next, in Shell, behavioral parameters (i.e., the orientation of the selected geometry and the capability to cut a face in the model) are the same for any new component (Fig. 10C, col. 16, line 61 through col. 17, line 13)). In the presently claimed invention, in contrast, behavioral parameters are specific to individual design features.

Further, in Shell, the user defines the geometry of the component by specifying geometrical elements and associating those elements to form an object from which a new component is created (col. 18, lines 51-55). Shell specifically refers to the geometry of

the component as “selected geometry” (col. 18, line 61 through col. 19, line 15). In the presently claimed invention, in contrast, the geometry of the design feature is calculated based on behavioral parameters and the context defined by other design features of the same object.

Accordingly, Shell does not teach or suggest at least the features of the present invention that are included in the following language of claim 1:

... receiving a user selection of a current design feature from a plurality of available design features;

identifying a plurality of behavioral parameters specific to the current design feature selected by a user; ...

... modeling the current design feature by calculating a geometry of the current design feature based on the one or more behavioral parameters selected by the user and context defined by other design features of an object having the current design feature. ...

Similar language is also included in independent claims 11, 20 and 21. Thus, independent claims 1, 11, 20 and 21 are not anticipated by Shell.

Claims 2-10 and 22-24 depend on independent claim 1 and include features that further limit claim 1, and claims 12-19 and 25-27 depend on independent claim 11 and include features that further limit claim 11. For example, claims 3 and 13 include additional features of receiving a user request to modify a geometric parameter of the modeled design feature, and modifying the geometry of the modeled design feature while maintaining its intended functionality as identified by its behavioral parameters and its relationship with other design features of the object. Shell does not teach or suggest allowing a user to request a change of a geometric parameter of a modeled design feature (or component) and making this change while maintaining the intended functionality of the design feature.

With respect to claims 7 and 16, Shell does not teach or suggest defining behavioral parameters for each design feature using rules associated with a corresponding application, as recited in claims 7 and 16. As discussed above, in Shell behavioral parameters are the same for all components and cannot be defined for a specific design feature using rules associated with a corresponding application, as claimed in claims 7 and 16.

With respect to claims 8 and 17, Shell does not teach or suggest calculating the geometry of the current design feature based on its relationships with other design features, as claimed in claims 8 and 17. As discussed above, in Shell, the geometry is specified by the user, and not calculated based on the relationships, as claimed in claims 8 and 17.

With respect to claims 10 and 19, Shell does not teach or suggest receiving a user request to modify parameters of another design feature, and adjusting the modeled design feature to maintain its intended functionality, as claimed in claims 10 and 19.

With respect to claims 22 and 25, Shell does not teach or suggest maintaining the functionality intended by the user for the current design feature during the object design process, as claimed in claims 22 and 25.

Accordingly, dependent claims 2-10, 12-19, 22-24 and 25-27 are not anticipated by Shell based at least on the rationale provided with respect to independent claims 1 and 11 on which these dependent claims depend. Thus, Applicants respectfully submit that Applicants' invention as claimed in independent claims 1, 11, 20 and 21, and their corresponding dependent claims 2-10, 12-19, 22-24 and 25-27, is not anticipated by the above reference, and respectfully request the withdrawal of the rejection under 35 U.S.C. § 102(e).

In view of the foregoing amendments and remarks, Applicants respectfully submit that the pending claims are in condition for allowance. Applicants respectfully request reconsideration of the application and allowance of the pending claims.

If the Examiner determines that prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Marina Portnova at (408) 720-8300.

Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicant hereby requests such extension.

Respectfully submitted,

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